Directorate Of Education & Leisure

Preventing Finger-Trapping Accidents in doors and gates

Introduction

This document provides guidance to all persons with delegated responsibilities for managing premises, regarding the prevention or reduction of the risk of injuries caused by trapping fingers in doors and gates. Caerphilly County Borough Council is committed to the protection, so far as is reasonably practicable, of the health and safety of our employees and other people (e.g. children) using our premises.

This guidance:

1. **should be considered and acted upon by all those with responsibilities for the management of safety within our occupied premises;**
2. **should influence the [local] health & safety policies and/or risk assessments of establishments or premises which are used by young children or vulnerable persons;**
3. **will be of particular interest to those managing safety within Primary Schools.**

Background information

It is estimated that >30,000 people per annum trap their fingers in doors, resulting in injuries including broken or amputated fingers. The majority of those affected by such “finger-trapping” incidents are children under the age of 8. Young children, or other vulnerable persons, don’t recognise hazards that may exist around us in the same way that adults and older children do, and so greater care is needed when managing the exposure of children to health and safety risks. What may be reasonably safe for adults may not be safe for children with less experience, maturity and development.

Incidents have occurred where young children have trapped their fingers in the gap on the hinged-side of doors (ie doorjamb) and between gates and gateposts, resulting in very painful injuries including broken fingers, crushed or bruised fingers or finger tips, and the amputation of fingers. During summer 2003, 5 “serious” finger-trapping incidents involving young children occurred within our premises (e.g. School & Leisure Facilities), some of which resulted in amputation of children’s’ fingers.

Legal requirements & other considerations

Employers, and persons in control of premises, are required by the Health and Safety at Work etc Act 1974 to ensure, as far as reasonably practicable, that employees and other people who use their premises, including school pupils, are not exposed to risks to their health and safety.

The Workplace (Health, Safety & Welfare) Regulations 1992 require all doors and gates to be suitably constructed, including being fitted with any necessary safety devices. There are no explicit legal requirements or standards that require, for instance, that all doors in schools require the hinge-side gap to be shielded, however the risks posed by all doors and gates must be assessed and reasonable precautions taken to ensure they can be used safely.

The Health & Safety Executive have advised that “as finger guarding devices are readily available and relatively inexpensive to install, it is reasonably practicable for schools, or other establishments which are frequently used by young children or vulnerable persons, to fit guarding on doors identified as high risk following a suitable risk assessment”. HSE are currently drafting guidance for their inspectors regarding

the door/gate risk management approach to be expected when they inspect schools and similar establishments. Civil claims for damages and/or compensation from persons injured by finger trapping incidents have been numerous and substantial.

Roles & Responsibilities

Caerphilly County Borough Council, being an employer, has ultimate responsibility for the health and safety of its employees in and visitors to its establishments and premises (except in St Helen's R.C School where the Governors are the employers). In practice these responsibilities are delegated to local premises managers or persons in control of premises as outlined in our health and safety policies. These duties will include carrying out [non-technical/general] risk assessments or inspections of the premises and the activities ongoing therein, in accordance with any training and/or instructions given. To be effective, such risk assessments should be undertaken by persons with local knowledge of how the doors within the premises are used, and by whom.

In schools it is the school management team, led by the Head Teacher, who will have responsibility for the day-to-day implementation of health and safety policies & procedures, thereby ensuring (along with the cooperation of everyone at the school) that the school remains a safe place.

Risk Assessment – Identifying High risk doors & gates

All doors & gates in premises where young children (<8 years old) or other vulnerable persons frequent, such as Primary schools, potentially present a risk to health and safety.

The premises manager or person in local control of any premises is responsible for delivering the [non technical] risk assessment of doors and should keep a record of their resulting survey of doors in their premises, and any decisions made regarding the measures to be taken to manage the risks presented. A form is provided in Appendix 1 for this purpose, along with a completed example.

The nature and magnitude of the risk posed by each door or gate to persons depends upon:

Risk Criteria for doors & gates

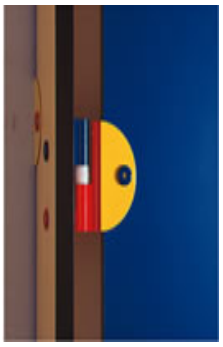
- the individual design characteristics and the position of the door/gate, including:
  - whether [exposed] pinch points exist;
  - the weight of the door/gate;
  - the profile of the door/gate edges (ie some aluminium doors have sharp profiles);
  - whether closure of the door/gate is managed in some way (e.g. very rapid closure prevented by automatic closure device such as those found on fire doors in corridors);
  - whether the door/gate could be slammed shut by either the wind or a person;

- the likelihood of young children or vulnerable persons being in a position to place their fingers in any pinch points that exist, which is influenced by:
  - the position/use of the door/gate, and thereby the frequency which young children or vulnerable persons use it;
  - the likelihood that young children or vulnerable persons will congregate next to a door/gate, with limited close supervision, for instance while queuing for lunch;
  - the age and physical/mental abilities of the children or vulnerable persons;
  - foreseeable behaviour and the level of supervision and control exercised over children or vulnerable persons;

For example. The door to a storeroom in a school or similar establishment (which is only used by staff and is kept locked when not in use- even if it was a heavy-weight door in a primary school,) would present a low risk to young children's fingers. Other doors that are used infrequently by children or vulnerable persons, such as emergency [fire] exits or staff toilets, would also pose a low risk. However, a medium weight door to toilets or changing rooms in a primary school, where young children may congregate with no/limited supervision, would present a high risk to young children's fingers.

Doors in school corridors, classrooms doors, and doors to toilets/changing rooms and toilet cubicles which are frequently used by significant numbers of young children (<8 years old) or vulnerable persons are all probably high-risk doors, and measures will be required to eliminate or minimise the risk of young children or vulnerable persons being harmed.

Risk Management – Eliminating or minimising risks from doors & gates



It is always best to avoid/eliminate hazards, and thereby risks, rather than trying to guard against them or place signs warning of their existence. In the context of doors and gates, and the risk they pose to young children or vulnerable persons, this means that efforts should be made to completely avoid -by design- any pinch points presented by doors and gates before any consideration is given to guarding or other precautionary measures. This [preferred] approach to risk reduction can be effectively used to manage potentially dangerous pinch points presented by both gates and some doors. Anti-trap hinges (see photo to right) can be used to avoid the pinch points between cubicle doors and the "receiving" wall. The lock or catch may also need to be adjusted/raised in a similar way to ensure the door operates properly.

Hinges on gates can be designed so that the gate doesn't meet the gatepost. Alternatively, if this isn't possible, gate opening limiters can be fixed upon the gatepost –whether they are metal or wooden- (see photo to the left) to effectively prevent the gate opening past 90 degrees and thereby creating a "pinch-point".

Another means of preventing gates opening beyond 90 degrees is the insertion of a post &/or gate-stop into the ground "behind" the gate. This risk control option is not preferred to the one outlined above due to these short posts in the floor potentially causing injury should someone trip over and/or fall onto them.

Where the risks posed by doors cannot be avoided –by design- consideration should be given to minimising the likelihood of young children or other vulnerable persons being exposed to the dangerous parts of the doors etc. such as avoiding the need for pupils to queue and congregate near doors in which they may injure their fingers.

Many doors in corridors often have automatic closure devices fitted, for the purpose of managing the risks from the spread of fire and smoke, and maintaining a safe means of escape from the building. The closure devices ensure the door is always closed after use, and the rate of closure is fully adjustable by manually turning screws within the closure device at the top of the door. All door closure devices should be properly adjusted so that they close within a reasonable amount of time, but don't slam shut. Properly adjusted door closure devices will reduce, but not eliminate, the risk of finger trapping incidents because they give young children more time to remove fingers from within doorjambs when the door is closing.

Where changing the design of a door and its hinges etc are not practicable, and the door still poses a high risk of injury to young children or vulnerable persons, finger-guarding devices should be considered. Finger-guarding devices are simple plastic guards that shroud the gap on the hinged-side of doors (ie doorjamb) whilst it is opened, thus preventing any fingers entering this potentially dangerous zone. They do not interfere with the operation of the door, including fire doors, and require minimal maintenance.

Due to the severity of these injuries and the availability and relative low cost of finger guarding devices and/or "safe" hinges, it is **recommended** that:

- door-guards are fitted in the first instance to "high risk" doors, such as classroom doors, entrances to toilets and changing room doors, and
- "safe" hinges are fitted upon all gates & toilet cubicle doors,

that are used by young children (<8 years old) or vulnerable persons;

Arranging changes to door design and/or procurement & fitting of door guards

Once [local] premises managers have surveyed the doors in their premises, and assessed the risk they pose to young children or vulnerable persons, arrangements will need to be made to implement the risk management decisions made (e.g. fit door guard). Details have previously been circulated of "Fingerguard", a company that fits door guards. Alternatively, you may wish to contact Property Division in Woodfieldside who can arrange for the work to be undertaken

New/Refurbished Buildings

This guidance should be considered by those persons specifying the design and construction of new or refurbishment of existing buildings, especially those buildings which will be used by young children or vulnerable persons, so that the risks of finger trapping can be considered at the design stage of any project, and the risks eliminated or minimised.

Checks after Installation

Premises managers should ensure that door guards or other safety devices installed at their premises are regularly &/or briefly visually inspected to check for damage or deterioration of the means of fixing, so that appropriate remedial action can be taken. This can be done at the same time as your regular routine inspections and/or tours of the premises, and you should include this risk control measure within any checklist you use for this purpose.

Furthermore, you could inform young children or other vulnerable persons about the trapping hazard(s) that exists at doors or gates, the purpose of the guarding devices (if installed), and the need to tell staff about any damage they spot.

Queries and/or advice

Should you have any queries with regards to the contents of this guidance note and the use & application of risk assessment to prevent finger-trapping incidents in doors within our premises, please contact the Directorate's Health & Safety Team:

Donna Jones - Health and Safety Manager - 01443 864865

Terry Phillips - Health and Safety Officer - 01443 864858

Barry Miller - Health and Safety Support Officer - 01443 864821

Fax – 01443 864885

Appendix 1

Door Survey Report

Establishment	Caerphilly Primary	Premises Manager	Mrs Thomas (Headteacher)	Contact Tel No	
Date of Survey:	7th December, 2004	Door Surveyor	Mr Watkins (Caretaker)	Contact Fax No	

Door/No	Location/Room	Risk Rating (using risk criteria on page 2)			Door type			Door closer?	Improved risk control measures required (& comments)	Door guard?
		High	Med	Low	Wood	Metal	Other			
1	Boys toilet (entrance)	√			√			√	Door guard needed	√
2	Boys toilet cubicles			√	√				Lightweight doors with raised/safe hinges	
3	Girls toilet (entrance)	√			√			√	Door guard needed	√
4	Girls toilet cubicles			√	√				Lightweight doors with raised/safe hinges	
5	First aid room		√						Not heavily used by pupils	
6	Staff room			√						
7	Head-teachers office		√		√			√		
8	Main entrance gate	√			√				Install “gate-stop” to prevent [steel] gate meeting with gate post	
9	Store room (Cleaners cupboard)			√	√				No access by pupils	
10	Main corridor (outside Room 3)		√					√	Doors held open by magnetic switch, only close when fire alarm sounds	
11	Main corridor (outside dining	√						√	Heavily used by young pupils	√

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2										
3										
4										
5										
6										
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